

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A method for suppressing silence in bi-directional communications between a centralized node and a plurality of local nodes in an asynchronous network environment, comprising the steps of:

detecting a silent period in an upstream channel, said upstream channel transmitting data from a local node; and

deactivating unsolicited grant service and request polling in response to said detecting a silent period.

2. (Original) A method of claim 1, further comprising the step of receiving an activity message from the local node to detect said silent period.

3. (Original) A method of claim 2, further comprising the step of receiving said activity message in a contention mini-slot.

4. (Original) A method of claim 2, wherein said activity message includes a silence flag marked to designate the start of a silent period.

5. (Original) A method of claim 1, further comprising the step of detecting said silent period in response to the number of unused grants exceeding a predetermined threshold.

6. (Original) A method of claim 1, further comprising the step of reducing downstream transmissions to the local node in response to said detecting a silent period.

7. (Original) A method of claim 1, further comprising the step of reactivating unsolicited grant service upon receipt of an activity message.

8. (Original) A method of claim 7, wherein said activity message is a bandwidth request.

9. (Original) A method of claim 7, further comprising the step of receiving said activity message in a contention mini-slot.

10. (Original) A method of claim 7, further comprising the step of receiving said activity message as a piggyback request in a grant.

11. (Original) A method of claim 1, further comprising the step of detecting silence in an upstream channel transmitting voice data.

12. (Original) A method of claim 1, further comprising the step of detecting silence in an upstream channel transmitting voice data over an internet protocol.

13. (Original) A method of claim 1, wherein said step of detecting a silent period, further comprises the step of receiving a signal from an activity detector indicating silence.

14. (Original) A method of claim 1, further comprising the step of reactivating unsolicited grant service upon receipt of a signal from an activity detector indicating activity.

15. (Currently Amended) A method for compressing silence in bi-directional communications between a centralized node and a plurality of local nodes in an asynchronous network environment, comprising the steps of:

providing a first level of unsolicited grant service;

detecting a silent period in an upstream channel, said upstream channel transmitting data from a local node; and

~~reducing~~ providing a second level of unsolicited grant service in response to said detecting a silent period, wherein said second level of unsolicited grant service is reduced as compared to said first level of unsolicited grant service.

16. (Original) A method of claim 15, further comprising the step of receiving an activity message from the local node to detect said silent period.

17. (Original) A method of claim 16, wherein said activity message includes a silence flag marked to designate the start of a silent period.

18. (Original) A method of claim 15, further comprising the step of detecting said silent period in response to a reduction in grant usage.

19. (Original) A method of claim 15, further comprising the step of reactivating unsolicited grant service upon receipt of an activity message.

20. (Original) A method of claim 15, further comprising the step of detecting silence in an upstream channel transmitting voice data.

21. (Original) A method of claim 15, further comprising the step of detecting silence in an upstream channel transmitting voice data over an internet protocol.

22. (Original) A method of claim 15, wherein said step of detecting a silent period, further comprises the step of receiving a signal from an activity detector indicating silence.

23. (Original) A method of claim 15, further comprising the step of reactivating unsolicited grant service upon receipt of a signal from an activity detector indicating activity.

24. (Currently Amended) A method of determining the number of contention mini-slots required for voice priority in bi-directional communications between a centralized node and a plurality of local nodes in an asynchronous network environment, comprising the steps of:

determining a number of calls in a silent state;

calculating ~~the~~ a number of contention mini-slots required to restrict ~~the~~ a probability of ~~collision~~ collision to a specific value based on said number of calls in a silent state;

indicating said calculated number of contention mini-slots to a cable modem termination system (CMTS) scheduler, wherein the CMTS scheduler allocating allocates said calculated number of contention mini-slots for ~~the~~ voice priority; and

using the voice priority contention mini-slots to send a bandwidth request to reactivate the calls.